

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

KMC

**PCT**

## WRITTEN OPINION

(PCT Rule 66)

*ATY RESP W.O.: Oct 16, 2004*

**16 AUG 2004**

To: STEVEN C. BRUESS MERCHANTS & GOULD P.C. P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903		Date of Mailing (day/month/year)	
Applicant's or agent's file reference  758.1472WOII ✓		REPLY DUE  within 2 months/days from the above date of mailing	
International application No.  PCT/US03/38822	International filing date (day/month/year)  05 December 2003 (05.12.2003)	Priority date (day/month/year)  06 December 2002 (06.12.2002)	
International Patent Classification (IPC) or both national classification and IPC  IPC(7): B01D 46/00,50/00 and US CI.: 095/268; 055/319,320,337			
Applicant  DONALDSON COMPANY, INC.			

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:

- I  Basis of the opinion
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.

For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.

For an informal communication with the examiner, see Rule 66.6

**If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 06 April 2005 (06.04.2005)

Name and mailing address of the IPEA/US  Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450  Facsimile No. (703) 305-3230	Authorized officer  Duane S. Smith  Telephone No. 571-272-0987
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**I. Basis of the opinion****1. With regard to the elements of the international application:\***

the international application as originally filed

the description:  
pages 1-25, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.

the claims:  
pages 26-29, as originally filed  
pages NONE, as amended (together with any statement) under Article 19  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.

the drawings:  
pages 1-11, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.

the sequence listing part of the description:  
pages NONE, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of \_\_\_\_\_.

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

the language of publication of the international application (under Rule 48.3(b)).

the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:**

contained in the international application in printed form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4.  The amendments have resulted in the cancellation of:**

the description, pages NONE

the claims, Nos. NONE

the drawings, sheets/fig NONE

**5.  This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims 1-20	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 4-19	YES
	Claims 1-3,20	NO
Industrial Applicability (IA)	Claims 1-20	YES
	Claims NONE	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-3,20 lack an inventive step under PCT Article 33(3) as being obvious over either Read(US Patent No. 6,136,076) or Linnersten et al(US Patent No. 6,485,535).

Read teaches a gas/liquid separator(10) including a vessel(10) having an outer wall(11), a gas flow inlet(19) and a lower sump(12); preseparation assembly including a radially continuous axial shroud(14), and a mounting space for a separator element(16). Read does not disclose the axial shroud extending along a distance of 20-60% of the axial length of the mounting space. However, the mere optimization of distance to provide increased efficiency of separation of liquid from the gas is well within the scope of one of ordinary skill in the art. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, applicant must show that the chosen dimensions are critical. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the axial length of the shroud of Read in order to enhance the separation efficiency of the gas inlet flow.

Linnersten et al teaches a gas/liquid separator(10) including a vessel having an outer wall(11), a gas flow inlet(17) and a lower sump(12); preseparation assembly including a radially continuous axial shroud(20), a mounting space for a separator element(21). Linnersten et al does not disclose the axial shroud extending along a distance of 20-60% of the axial length of the mounting space. However, the mere optimization of distance to provide increased efficiency of separation of liquid from the gas is well within the scope of one of ordinary skill in the art. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, applicant must show that the chosen dimensions are critical. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the axial length of the shroud of Linnersten et al in order to enhance the separation efficiency of the gas inlet flow.

Claims 4-19 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed features of dependent claims 4-19 in combination with the features of the independent claim and any intervening claims.

Claims 1-20 the criteria set out in PCT Article 33(4), and thus the gas/liquid separator has industrial applicability because the subject matter claimed can be made or used in industry.

WRITTEN OPINION

International Application No.  
PCT/US03/0002

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.